

ABSTRACT

1 An apparatus and method having a de-interleaving memory and a controller is
2 used for de-interleaving interleaved data in a coded orthogonal frequency division
3 multiplexing receiver. The controller generates the correct access addresses of the de-
4 interleaving memory for the data to be de-interleaved, and controls the read and write
5 operations to the de-interleaving memory. The controller comprises an address generator
6 having a plurality of base address generators, and a read/write control circuitry. By using
7 the de-interleaving memory combined with memory address computation for the
8 interleaved data, frequency de-interleaving, block de-interleaving and time de-
9 interleaving are performed in one-stage approach in the COFDM receiver. The memory
10 size is reduced and the circuitry complexity for performing the de-interleaving process is
11 relatively low.